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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,532	04/15/2002	Kurt Burger	R.35252	3306

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EXAMINER

BEISNER, WILLIAM H

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/890,532

Applicant(s)

BURGER

Examiner

William H. Beisner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-31 is/are pending in the application.
- 4a) Of the above claim(s) is/are withdrawn from consideration.
- 5) ☐ Claim(s) is/are allowed.
- 6) ☒ Claim(s) 15-31 is/are rejected.
- 7) ☐ Claim(s) is/are objected to.
- 8) ☐ Claim(s) are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. .
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date .
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 15-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

In claim 15, line 2, "the articles" lacks antecedent basis.

In claim 24, the recited "leakage groove" is indefinite. It is not clear how this groove structurally cooperates with the rest of the positively recited structures other than the cone. What is allowed to leak and where and/or with respect to what is allowed to leak? Clarification and/or correction is requested. The same holds true with respect to the "a predetermined leakage" as recited in claims 26 and 27. Also, "the chamber" lacks antecedent basis in claims 26 and 27.

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Claim 28 is indefinite because "the method" and "the vessels" lack antecedent basis.

Note claim 28 has been drafted as an independent claim while it appears that it should be a dependent claim.

Claim 30 depends from claim 29 and is indefinite because it cannot be clearly determined how claim 30 further differs from claim 29, if at all.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 15-20, 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Fraser et al.(US 3,851,436).

With respect to claim 15, the reference of Fraser et al. discloses a method for sterilizing vessels (2) wherein the interior and exterior of the vessel (2) is spatially contacted with plasma gas (See Figure 3).

With respect to claims 16 and 20, the vessel is carried or placed within chamber (1) in which at least nearly a total vacuum can be produced (See vacuum pump (13). Plasma gas is provided to the interior of the vessel (2) by feed line (20) that is shielded from the chamber (1) and a gas pressure gradient is established and maintained in the interior of the vessel (2) such

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that excited plasma gas is maintaining or contacts the interior of the vessel for a predetermined length of time.

With respect to claim 17, the gas pressure gradient is maintained by valve (15) and vacuum pump (15) for controlling the flow of plasma gas relative to the interior and exterior of the vessel (2).

With respect to claims 18, 29 and 30, the chamber (1) is initially evacuated (See column 1, lines 65-67).

With respect to claim 19, an independently control plasma gas can be provided on the exterior of the vessel (See Figure 3 and related disclosure).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 21-23 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fraser et al.(US 3,851,436).

The reference of Fraser et al. has been discussed above.

With respect to claims 21-23 and 31, while the reference of Fraser et al. discloses a flow of plasma gas that first contacts the interior of the vessel and then the exterior of the vessel prior to exiting the chamber, in the absence of a showing of criticality and/or unexpected results, it would have been well within the purview of one having ordinary skill in the art at the time the invention was made to reverse the flow of gas and plasma gas connections such that the plasma gas is introduced into the chamber, contacts the exterior of the vessel and then exits the chamber through the interior of the vessel for the known and expected result of providing an alternative means recognized in the art to achieve the same result, sterilization of the interior and exterior of the vessel.

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10. Claims 24, 25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fraser et al.(US 3,851,436) in view of Hoeck (US 4,544,529) or Schulte (US 2,501,193).

The reference of Fraser et al. discloses a plasma sterilization device that includes a chamber (1'), a conduit means (5'') connected via feed line (5') with a gas supply (3) located outside the chamber (1'). The device includes a pump (13) connected to the chamber (1') and a plasma source (6',8') mounted on the outside of the chamber (1') and operable to excite plasma in the chamber (1').

With respect to claim 24, while the reference of Fraser et al. discloses a structure for supporting vessel (2) while holding the vessel within the chamber and also connecting the vessel to the plasma gas source (See Figure 2), claim 24 differs by reciting that the vessel is supported on a cone with a leakage groove.

The reference of Hoeck (US 4,544,529) disclose a structure for holding a container while exposing the container to a sterilization gas wherein the holder includes a cone (15) that includes a groove forming member (13) such that gas can flow from the interior of the container to the exterior of the container (See Figure 1 and column 4, lines 1-26).

The reference of Schulte disclose a structure for holding a container while exposing the container to a sterilization gas wherein the holder includes a cone (8) that includes a groove forming member (11) such that gas can flow from the interior of the container to the exterior of the container (See Figure 2).

In view of either of these teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the cone or funnel structure of the reference of Hoeck or Schulte as a device for supporting and communicating the plasma gas with the

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interior of a vessel in the system of the primary reference when sterilizing vessels with a single opening for the known and expected result of providing an art recognized means for allowing a sterilization gas to contact the interior and exterior of a vessel to be sterilized.

With respect to claim 25, in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art to optimize the opening formed by the grooves for the known and expected result of ensuring that enough back-pressure is created within the container interior to ensure that the gas contacts the interior of the container a sufficient amount of time to ensure sterilization of the interior of the container.

With respect to claim 26, the use of endless chain conveyors is well known in the art for allowing a plurality of vessels to be run through

With respect to claim 27, both the references of Hoeck and Schulte disclose the use of the cones structures in combination with carriers or boxes (See element (3) of Hoeck and element (3) of Schulte) that include flange portions that allow the cones to be communicated with a source of sterilization gas.

With respect to claim 28, the device is capable of treating plastic or glass vessels.

11. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fraser et al.(US 3,851,436) in view of Hoeck (US 4,544,529) or Schulte (US 2,501,193) taken further in view of Schroeder et al.(US 6,328,928 or WO 98/30491).

The combination of the references of Fraser et al. with either Hoeck or Schulte has been discussed above.

Claim 26 differs by reciting that the system employs a chain link conveyor.

The reference of Schroeder et al. discloses that it is conventional in the art to employ endless chain conveyors for conveying a plurality of vessels with a sterilization system (See column 2, lines 10-14).

In view of this teaching and in the absence of a showing of criticality and/or unexpected results, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ an endless chain conveyor with the system of the modified primary reference for the known and expected result of allowing a plurality of vessels to be passed through the sterilization system so as to avoid the need to manually open and close the chamber between sterilization cycles. Use of a conveyor system would increase the efficiency and number of vessels that can be sterilized when compared to a manual operation.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Beisner
Primary Examiner
Art Unit 1744

WHB